Ecologix Model Eco-Cycle 600
(Eco-Cycle 600 = 155 GPM Capacity)

Description & Function of the Complete Recycling System

For installing an Eco-Cycle recycling system it is necessary that the capacity of your underground waste water tank or car wash pit (silt chamber) should have a minimum volume of 2,000 gallons. We recommend a volume of 3,000-4,000 gallons. The minimum recommended water depth is 4' - 6". If the gallon volume(s) cannot be met with underground tanks, then an above ground silt chamber can be used, which draws from a sludge pump placed in the last underground tank.

Used wash water first flows over the car into a collection pit (or overflow trench). From where it flows through a sewer pipe into the underground tank(s). If a trench is used, this should be a positive flow trench, so no standing water accumulates. It then flows through a 6 inch (or 4 inch) drain into the underground tank where larger solids will settle. A float switch (B1) and a sludge pump encased in a pump protector, are installed in this underground tank(s).

Used wash water first flows over the vehicle into a collection pit/inflow trench from where it flows through a sewer pipe into the underground tank(s). Any large solid particles present in the water will settle in these tanks. A float switch (B1) and three sludge pumps, encased in pump protectors, are installed in the last underground tank (if there are two tanks). These pumps deliver the water through pipes “pressure pipes from sludge pump” to the recycling unit. There it passes through six water-cyclones and three high voltage electrodes to the reactor tank of the Eco-Cycle recycle unit. Inside the reactor tank two float switches (B2 and B3) and a flotation membrane are installed. When the car wash machine demands water, recycled water is pumped by three pressure pumps out of the reactor tank through three Hydro-Stabilizers, three fine filters (with an automatic back flush device) and through the flow switch to the car wash machine. This process is automatically controlled.

The filtered and deggermed water is delivered under an average pressure 60 psi (4 bar), through Pipe I “recycled water to consumer”, to the car wash for re-use. A water meter is installed in this pipe to monitor the amount of recycled water delivered for use in the car wash.

Recycled water can be used in the car wash for all pre-wash, main wash and high pressure wash requirements. The final rinse cycle, into which the drying agent or wax is added, should be carried out with fresh water from the local water supply. The car wash machine switches back and forth between recycled water and fresh water as needed by the different wash cycles independently of the recycling unit.
Ecologix Model Eco-Cycle 600

*Description & Function of the Complete Recycling System*

(Continued)

**IMPORTANT:**
When installing a car wash, ensure that it is equipped with two water inlet connections:

- One for recycled water
- Another for fresh water

We recommend installing a water meter in the fresh water pipe from the local water supply to the car wash to monitor the amount of fresh water which was used in the car wash.

When a wash cycle begins, the water pressure in Pipe I “recycled water to consumer” on the Eco-Cycle Recycling unit drops from 4,5 bar to 3,5 bar (76.5 - 52.6 psi).

If the minimum pressure is reached, the pressure switch on the Eco-Cycle Recycling unit activates the pressure pump, which feeds recycled water through the fine filter to the car wash, at a pressure of approximately 4 bar (60 psi).

When the wash cycle ends the pressure switch on the Eco-Cycle unit will stop the pressure pump again once the maximum pressure of 4,5 bar (76.5 psi) is reached.

**This process is repeated for each wash cycle**

To prevent the sludge pump from running dry (at initial start-up or due to leaks), a float switch B1 is installed in the underground tank. This switch automatically stops the sludge pump if the water level in the underground tank drops below the allowed minimum level.

The electric cable for float switch B1 and the electric cable for the sludge pump runs through a PVC drain pipe (or separate 1” conduit depending on State Code) installed from the underground tank to the Eco-Cycle Recycling unit.

A compressed-air hose, which is installed between the pump protector and Pipe VI “compressed-air for reversible flow to pump protector” on the recycling unit, also passes through this PVC drain pipe. The compressed air hose is required for cleaning the pump protector during maintenance.

To prevent the pressure pump from running dry (at initial start-up) a float switch (B2) is installed in the reactor tank. This switch automatically deactivates this pressure pump if the water level inside the reactor tank falls below the allowed minimum water level.

The float switch B3, which is installed in the reactor tank, activates or deactivates the sludge pump in the underground tank.